Para Español, vea por favor página 14.

ZOOM AP+4

This Quick Start tells you how to install the AP+4 and configure wireless security. For additional information about other topics, please see the User Guide on the CD.

Quick Start

Connecting the Hardware

1. Put the AP+4 near a computer to be used for setup. That computer needs an Ethernet (LAN) port.
2. Turn off the computer.
3. Plug the supplied power cube into the AP+4, and then into a power outlet.

> **Important!** Use only the power cube shipped with the AP+4. Other power cubes may damage the device.

The **PWR** LED on the AP+4 front panel should turn on and within a few seconds the **WLAN** LED should flash. (The WLAN LED continues to flash to signify broadcast activity as long as the Wireless LAN is enabled. It is enabled by default.)

4. Connect one end of the supplied Ethernet cable to the computer's Ethernet port and the other end to any of the AP+4's LAN ports.
5. Turn on the computer. The connected **LAN** port and the **ACT** (Activity) LEDs immediately become steady on. (If you have a 10 Mbps Ethernet connection, the LAN LED does not turn on.)
6. If you want the AP+4 to have access to the Internet, connect its **WAN** port to the Ethernet port on your cable modem, ADSL modem, or other broadband device. When you do this, the **WAN** LED turns on if the broadband device is on and its Ethernet port is working.

Setting Up the AP+4

1. Open your Web browser, enter **10.0.0.200** in the address bar, and press the **Enter** key to open the Zoom AP+4 configuration software. The **Status** page appears first.
2. In the left pane, select **Setup Wizard**.
3. On the **Welcome** page, click **Next**.
4. On the **Choosing an Operating Mode** page, select the way you want to use the AP+4:

   - Router/Access Point
   - Ethernet Client
   - Wireless ISP

   Router/Access Point. In this mode, which is the one most users will select, the AP+4 links all wireless-enabled computers and other devices to a network and gives those devices shared access to your broadband Internet connection.

   In the unlikely event that you are using the AP+4 as a Repeater, on the **Wireless Basic Setup** page at the **Mode** option, select **AP+WDS**. Then, on the **WDS Settings** page, enter the MAC addresses of access points you are communicating with.

   Ethernet Client. This mode lets up to four computers, game consoles or other devices plug into the AP+4 for wireless access to a wireless network. (In this mode, the AP+4 acts as a full bridge, just passing data back and forth between the Internet and network devices.)

   Wireless ISP. In this mode, the AP+4 connects to the Ethernet ports of up to four wired PCs or game consoles, and connects those devices wirelessly to a wireless access point. Use this mode if you know you need to use the AP+4's NAT functionality. Most users who need to connect a computer or game console to an access point should set up the AP+4 as an Ethernet Client instead.

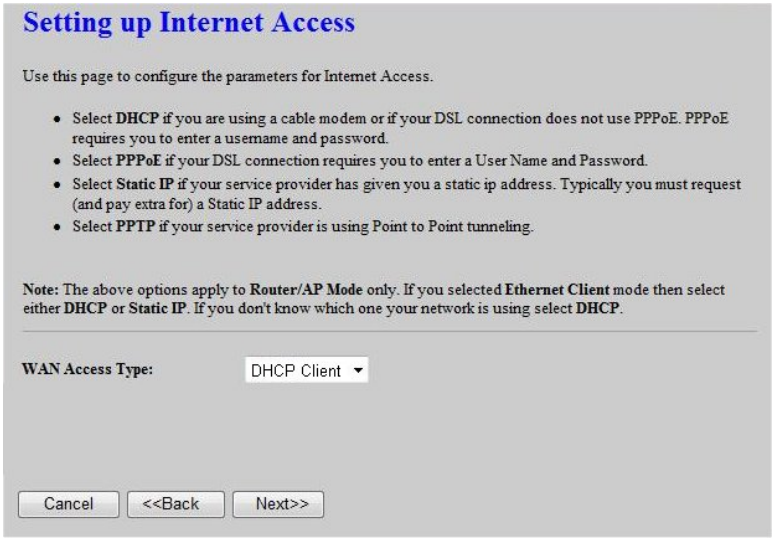
   If you select Wireless ISP mode, use the **Wireless Basic Setup** page to configure the AP+4 as a wireless client.

   Click **Next** to continue.

5 To have the AP+4's clock automatically updated by an NTP server, on the **Selecting a Time Zone** page, select a **Time Zone** and an **NTP Server**, and click **Next**.

6 In the unlikely event that you need to set up or modify your wired local network, use the **LAN Interface Setup** page. Please see the instructions in the User Guide on the AP+4 CD.

7 To connect to the Internet, select the method on the **Setting Up Internet Access** page.


Setting up Internet Access
Use this page to configure the parameters for Internet Access.
Select DHCP if you are using a cable modem or if your DSL connection does not use PPPoE. PPPoE requires you to enter a username and password.
Select PPPoE if your DSL connection requires you to enter a User Name and Password.
Select Static IP if your service provider has given you a static ip address. Typically you must request (and pay extra for) a Static IP address.
Select PPTP if your service provider is using Point to Point tunneling.
Note: The above options apply to Router/AP Mode only. If you selected Ethernet Client mode then select either DHCP or Static IP. If you don't know which one your network is using select DHCP.
WAN Access Type:
DHCP Client
Cancel
<<Back
Next>>

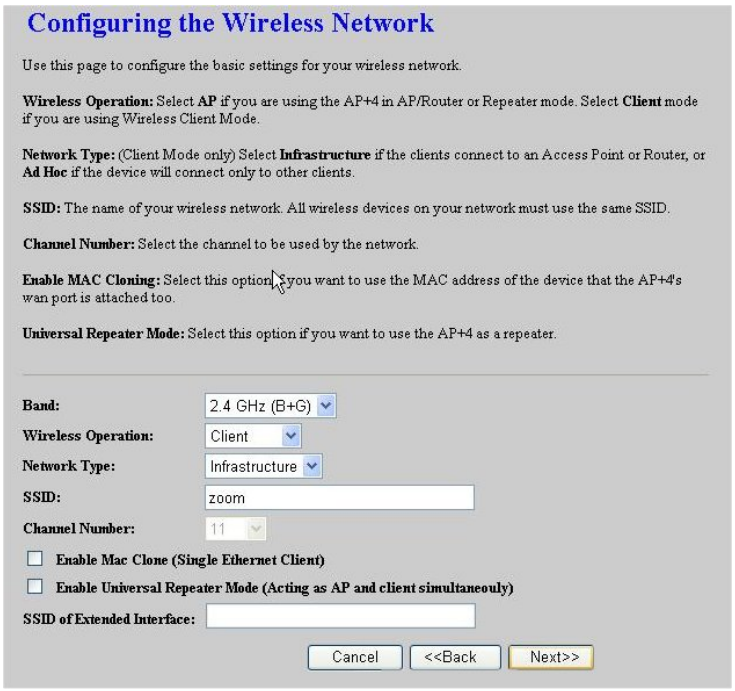
- The vast majority of users should select **DHCP Client** as the **WAN Access Type**.
- If you select DHCP Client and at the end of the installation process you have not connected successfully to the Internet, it is possible that you are running PPPoE software. In that case, at **WAN Access Type** select **PPPoE** (**P**oint-to-**P**oint **P**rotocol **o**ver **E**thernet). Then enter the **User Name** and **Password** given to you by your service provider.
- If you are using the AP+4 as an Ethernet Client or a Repeater, at **WAN Access Type** you should also select **DHCP Client** *unless* you have requested a Static IP from your Internet Service Provider.

If you *have* requested a static IP, select the **Static IP** option and enter the values for **IP Address**, **Subnet Mask**, **Default Gateway** and **DNS Server** that you want to use on your network.

- If you are setting up a Virtual Private Network (VPN) select **PPTP.** (Your ISP will tell you if you need to select this protocol. Most people don't.)

Click **Next** to continue.

8 On the **Configuring the Wireless Network** page, enter your wireless network parameters.


Configuring the Wireless Network
Use this page to configure the basic settings for your wireless network.
Wireless Operation: Select AP if you are using the AP+4 in AP/Router or Repeater mode. Select Client mode if you are using Wireless Client Mode.
Network Type: (Client Mode only) Select Infrastructure if the clients connect to an Access Point or Router, or Ad Hoc if the device will connect only to other clients.
SSID: The name of your wireless network. All wireless devices on your network must use the same SSID.
Channel Number: Select the channel to be used by the network.
Enable MAC Cloning: Select this option if you want to use the MAC address of the device that the AP+4's wan port is attached too.
Universal Repeater Mode: Select this option if you want to use the AP+4 as a repeater.
Band:
2.4 GHz (B+G)
Wireless Operation:
Client
Network Type:
Infrastructure
SSID:
zoom
Channel Number:
11
Enable Mac Clone (Single Ethernet Client)
Enable Universal Repeater Mode (Acting as AP and client simultaneouly)
SSID of Extended Interface:
Cancel
<<Back
Next>>

- At **Band**, select the type(s) of devices in your network:
  - **B+G** if the network includes both 802.11b and 802.11g devices. This option is best for most users.
  - **B** if the network includes only 802.11b devices
  - **G** if the network includes only 802.11g devices

- At **Wireless Operation**, select
  - **AP** if you are using the AP+4 as a Router/Access Point or a Repeater.
  - **Client** if you are using the AP+4 as an Ethernet Client.
  - **WDS** in the unlikely event that you want to use the AP+4 as a repeater in WDS (**W**ireless **D**istribution **S**ystem) mode.
  - **AP+WDS** in the unlikely event that you want the AP+4 to operate as both an Access Point and a repeater in WDS mode.
- At **Network Type** (available only if the AP+4 is operating as a Client) select Infrastructure (most users) or Ad Hoc.
- At **SSID**, enter the name of your wireless network. All wireless devices on your wireless network should use the same SSID. You may have already assigned one to another device, and in that case use the same SSID here. If you haven't assigned one already, you can create a new SSID now. We suggest that you make it at least 8 letters and numbers and avoid a name that reveals your individual or company name or your street address. (The SSID is case-sensitive.)
- At **Channel Number** (available only in the unlikely event that you selected Ad Hoc channel as your Network Type), select a channel number that isn't being used by another nearby network. If you are unsure which channel to use, try Channel 6.
- Select **Enable MAC Clone** in the unlikely event that you want to use the MAC address of a device in the network instead of the AP+4's MAC address.
- **Enable Universal Repeater Mode** (unavailable)
  - **SSID of Extended Interface** (unavailable)

Click **Next** to continue.

9 On the **Setting Up Wireless Security** page, select an encryption method to protect your wireless communication. *We strongly recommend that you set up security*.

Setting Up Wireless Security
Select a security method to protect your wireless network. Setting security prevents unauthorized access to your network.
WPA2: Select this method if all the wireless devices in your network support it. WPA2 is the recommended setting.
WPA2 Mixed:Select this method if some of the devices in your wireless network only support WPA.
WPA:Select this method if none of the devices in your network support WPA2 but do support WPA.
WEP:Select this method only if you have older devices in your network that do not support WPA or WPA2.
Encryption: WPA2(AES)
Pre-Shared Key Format: Passphrase
Pre-Shared Key:
Cancel
<<Back
Finished

Note: We include instructions here for setting up WEP (**W**ired **E**quivalent **P**rivacy) 64-bit security, because WEP-64 works with almost all 802.11 wireless equipment. It is normally the easiest security to use.

The AP+4 also supports WPA™ (**W**iFi® **P**rotected **A**ccess™) and WPA2™ for an even higher level of security. If you know that all of the devices on your network use WPA or WPA2, we recommend that you use one of these methods. You can automatically configure WPA2 or WPA on each device using the Wi-Fi Protected Setup (**WPS**) page on the AP+4 **Advanced Setup** menu. Please see the User Guide on the CD for instructions.

To set WEP security, follow these steps:

In the **Key Length** list, select 64 bits.

In the **Key Format** list, if all the wireless devices in the network are Zoom products, select **ASCII**. Otherwise, select **Hex**.

In the **Default Tx Key** list, select Key 1 (the default).

In the **Encryption Key 1** text box, enter Key 1 in the format you selected, Hex or ASCII.

If you selected Hex Key Format, write your 13-digit hexadecimal key in the space below for future reference, and then enter the key in the Encryption Key 1 box. Each digit of the key needs to be one of these digits:

0 1 2 3 4 5 6 7 8 9 A B C D E F

— — — — — — — — — — — — —

If you selected ASCII, write your 5-digit ASCII-character key in the space below for future reference, and then enter the key in the Encryption Key 1 box. ASCII characters include all the numbers and letters, as well as some other characters. (***A*** is different from ***a***, so be careful.)

— — — — —

Click **Finished**, and at the **Settings changed successfully!** message, click **OK**.

Your basic setup is complete! You don't need to keep the AP+4 plugged into the setup computer.

- If you are using the AP+4 as a *Router/Access Point*, your broadband modem is already connected. You can plug up to four computers, game consoles, or other devices into the AP+4's LAN ports. The AP+4 can also link wireless devices to your network.
- If you are using the AP+4 as a *Repeater,* you can unplug the computer from the AP+4's LAN port and locate the AP+4 near the edge of the wireless network you want to extend.
- If you are using the AP+4 as an *Ethernet Client* or a *Wireless ISP* to provide access to your wireless network, you can plug up to four computers, game consoles, or other devices into the AP+4's LAN ports.

Advanced Features

For information about all the options on the AP+4 menu, please see the User Guide on the CD.

Troubleshooting Tips

Problem

I followed the instructions for connecting the AP+4 hardware and entered 10.0.0.200 in my Web browser's address bar, but I cannot access the AP+4.

Solution

First, manually reset the AP+4: insert a paper clip into the RESET opening on the back panel and press and hold for 10 seconds. After you've done that, re-enter 10.0.0.200 in your Web browser's address bar.

If you still cannot access the AP+4, follow the steps below to make sure the computer's TCP/IP settings are correct.

Windows Vista Users:

1. From the desktop, click the **Start** button, select **Control Panel**, and then double-click **Network and Sharing Center**.
2. In the **Network and Sharing Center** window, under **Tasks**, select **Manage Network Connections.**
3. In the **Network Connections** window, double-click the **Wireless Network Connection** option.
4. In the **Wireless Network Connection Status** dialog box, click the **Properties** button.
5. In the **Network Connection Properties** dialog box, highlight the version of TCP/IP that you are using and click the **Properties** button.
6. Select **Use the following IP address** and enter **10.0.0.100** and **255.255.255.0** as the **IP address** and **Subnet mask**, respectively.
7. Click **OK**, then click **Close.**
8. Re-enter 10.0.0.200 in your Web browser's address bar.

Windows XP Users:

1. On the Windows desktop, click the **Start** button, open **Control Panel,** and double-click **Network Connections**.
2. Right-click the **Local Area Connection** icon and select **Properties**.
3. Highlight the **Internet Protocol (TCP/IP)** entry and click the **Properties** button.

4. Select **Use the following IP address** and enter **10.0.0.100** and **255.255.255.0** as the **IP address** and **Subnet mask**, respectively.
5. Click **OK**, then click **Close.**
6. Re-enter **10.0.0.200** in your Web browser's address bar.

Windows 2000 Users:

1. On the Windows desktop, click **Start**, point to **Settings**, select **Control Panel** and then select **Network and Dial-up Connections.**
2. Right-click the **Local Area Connection** icon and select **Properties**.
3. Highlight the **Internet Protocol (TCP/IP)** entry and click the **Properties** button.
4. Select **Use the following IP address** and enter **10.0.0.100** and **255.255.255.0** as the **IP address** and **Subnet mask**, respectively.
5. Click **OK**, then click **OK** again.
6. Re-enter 10.0.0.200 in your Web browser's address bar.

Windows Me or 98 Users:

1. On the Windows desktop, click **Start**, point to **Settings**, and select **Control Panel.**
2. In the **Control Panel** window, double-click the **Network** icon.
3. In the **Network** dialog box, highlight the **TCP/IP** entry, click the **Properties** button and then click **OK**.
4. On the **IP Address** tab, ensure that **Specify an IP address** is selected and enter **10.0.0.100** and **255.255.255.0** as the **IP Address** and **Subnet Mask**, respectively.
5. Click **OK**, then click **OK** again.
6. Re-enter 10.0.0.200 in your Web browser's address bar.

Problem

I set up my AP+4 as an access point, but the devices I set up on my **zoom** wireless network cannot access the Internet.

Solution

1. Verify that a "wired" computer can access the Internet.
   - If it cannot, try the following:
     a. Make sure the associated LAN port LED on the AP+4 front panel is lit.
     b. Check the TCP/IP settings on the computer (see above, page 8).
     c. Perform a Release/Renew operation on the computer, or reboot.
   - If the wired computer *CAN* access the Internet, reboot the device(s) on your wireless network and try to access the Web again.

     If you still cannot connect to the Internet wirelessly, go to Step 2.
2. Verify that security is not set on the AP+4. If it is, ensure that the wireless devices are using the same security settings.
3. Verify that the devices are connected to the correct wireless network and that the signal strength is adequate. (Try repositioning the devices if the signal strength is too low.)
4. If you are using Windows XP with built-in wireless access:
   a. On your Windows desktop, click the **Start** button, then click **Control Panel**.
   b. Double-click the **Network Connections** icon.
   c. Click the **Wireless Network Connection** icon.
   d. Look at the details that appear on the left side of the screen. If the signal strength is low, try repositioning the antennas of the AP+4. You can also try moving the wireless devices closer to the AP+4. You should also verify that **zoom** is selected as the wireless network. If it is not, then you are connected to the wrong network.
5. If you are using a computer with a wireless network card installed, access the network card's software and verify that it is connected to the **zoom** network and that the signal

strength is adequate. Refer to the documentation that came with the network card if you need help doing this.

If You Need Help

If you need assistance, you should consider contacting your service provider. We encourage you to register your product and to notice the many support options available from Zoom. Please go to **www.zoom.com** and select **Technical Support**. From here you can **register your modem** and/or **contact our technical support experts** and/or use our intelligent database **SmartFacts**[tm] and/or get **warranty** information.

Regulatory Information

U.S. FCC Part 68 Statement

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. The unit bears a label on the back which contains among other information a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company. This equipment uses the following standard jack types for network connection: RJ11C. This equipment contains an FCC compliant modular jack. It is designed to be connected to the telephone network or premises wiring using compatible modular plugs and cabling which comply with the requirements of FCC Part 68 rules.

The Ringer Equivalence Number, or REN, is used to determine the number of devices which may be connected to the telephone line. An excessive REN may cause the equipment to not ring in response to an incoming call. In most areas, the sum of the RENs of all equipment on a line should not exceed five (5.0). In the unlikely event that this equipment causes harm to the telephone network, the telephone company can temporarily disconnect your service. The telephone company will try to warn you in advance of any such disconnection, but if advance notice isn't practical, it may disconnect the service first and notify you as soon as possible afterwards. In the event such a disconnection is deemed necessary, you will be advised of your right to file a complaint with the FCC.

From time to time, the telephone company may make changes in its facilities, equipment, or operations which could affect the operation of this equipment. If this occurs, the telephone company is required to provide you with advance notice so you can make the modifications necessary to obtain uninterrupted service.

There are no user serviceable components within this equipment. See warranty information on the CD.

It shall be unlawful for any person within the United States to use a computer or other electronic device to send any message via a telephone facsimile unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message and the telephone number of the sending machine or of such business, other entity, or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long distance transmission charges. Telephone facsimile machines manufactured on and after December 20, 1992, must clearly mark such identifying information on each transmitted message. Facsimile modem boards manufactured on and after December 13, 1995, must comply with the requirements of this section.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. Contact your state public utility commission, public service commission, or corporation commission for more information.

U.S. FCC Part 15 Emissions Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada Emissions Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Industry Canada CS03 Statement

Notice: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction. Before installing the equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of concern. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Notice: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Electrostatic Discharge Statement
The unit may require resetting after a severe electrostatic discharge event.

Safety Notices
To reduce the risk of fire, use the supplied phone cord or No.26 AWG or larger UL Listed or CSA Certified Telecommunication line cord. Do not use this product near water, for example, in a wet basement or near a swimming pool. Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Declaration of Conformity

Declaration of Conformity | Déclaration de conformité | Konformitätserklärung
Δήλωση Συμμόρφωσης | Dichiarazione di conformità | Deklaracja zgodności
Declaração de Conformidade | Declaración de conformidad | Konformitetsdeklaration
Uyum Beyanatı | Cam kết về sự tuân thủ ở Châu Âu

Manufacturer/Producent/Fabrikant/Constructeur/Hersteller/ Κατασκευαστής/Fabbricante/Fabricante/Tillverkare/Üretici/ Nhà sản xuất	**Zoom Technologies, Inc.** 207 South Street, Boston, MA 02111 USA 617-423-1072 www.zoom.com
Brand/Varemærke/Merk/Marque/Marke/Μάρκα/ Marchio/Marka/Marca/Märke/Thương hiệu	**Zoom AP+4**
Type/Typ/Μάρκα/Tipo/Türü/Kiểu mẫu	Model **4401A**

The manufacturer declares under sole responsibility that this equipment is compliant to Directive 1999/5/EC via the following. This product is CE marked.

Producenten erklærer under eneansvar, at dette udstyr er i overensstemmelse med direktivet 1999/5/EC via følgende. Dette produkt er CE-mærket.

De fabrikant verklaart geheel onder eigen verantwoordelijkheid dat deze apparatuur voldoet aan Richtlijn 1999/5/ EC op grond van het onderstaande. Dit product is voorzien van de CE-markering.

Le constructeur déclare sous son entière responsabilité que ce matériel est conforme à la Directive 1999/5/EC via les documents ci-dessous. Ce produit a reçu le marquage CE.

Hiermit erklärt Zoom die Übereinstimmung des Gerätes modem mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EC. Dieses Produkt ist das gekennzeichnete CE.

Ο κατασκευαστής δηλώνει με αποκλειστική του ευθύνη ότι αυτό το προϊόν συμμορφώνεται με την Οδηγία 1999/5/EC μέσω των παρακάτω. Αυτό το προϊόν φέρει τη Σήμανση CE.

Il fornitore dichiara sotto la sola responsabilità che questa apparecchiatura è compliant a 1999/5/EC direttivo via quanto segue. Questo prodotto è CE contrassegnato.

Producent stwierdza że to urządzenie zostało wyprodukowane zgodnie z Dyrektywą 1999/5/EC. Jest to potwierdzone poprzez umieszczenie znaku CE na urządzeniu.

O fabricante declara sob sua exclusiva responsabilidade que este equipamento está em conformidade com a Directiva 1999/5/EC através do seguinte. Este produto possui Marcação CE.

El fabricante declara bajo su exclusiva responsabilidad que este equipo satisface la Directiva 1999/5/EC por medio de lo siguiente. Este producto tiene marca CE.

Bu ürünün imalatçısı tüm sorumluluk kendisinde olmak kaydıyla bu cihazın aşağıdaki tabloda gösterilen biçimde 1999/5/EC (R&TTE Yönetmeliği) no.lu Yönetmeliğe uygun olduğunu beyan etmektedir. Bu ürün CE İşareti taşımaktadır.

Nhà sản xuất cam kết với trách nhiệm của mình là thiết bị này tuân theo Hướng dẫn 1999/5/EC thông qua các mục sau. Sản phẩm này được đánh dấu là CE.

73/23/EEC – LVD	EN 60950-1: 2001
89/336/EEC – EMC	EN 301 489-1 v1.4.1: 2002 EN 301 489-17 v1.2.1: 2002 EN 55022:1998 +A1: 2000 +A2: 2003, Class B EN 55024:1998 +A1: 2001 +A2: 2003
1999/5/EC	EN 300 328 v1.6.1: 2004 EN 50385: 2002

CE

Andy Pollock
24 March 2008
1056TF, Boston, MA, USA

Director, Hardware Engineering/Direktør, Hardware Engineering/Director, Sustaining Engineering/Directeur, ingénierie de soutien/Direktør, Sustaining Engineering/ Διευθυντής, Μηχανικής Διατήρησης/Direttore, Hardware Engineering/Dyrektor, Inżynieria ciągła/Director, Engenharia de Manutenção/ Director, Ingeniería de apoyo/Donanım Mühendisliği, Müdür/Giám Đốc Kỹ thuật Phần cứng

Esta Guía Rápida le informa sobre como instalar el AP+4 y como configurar la seguridad inalámbrica. Para obtener información sobre de otros temas, por favor vea la Guía del Usuario en el CD.

Guía Rápida

Como conectar el Hardware

1. Colocar el AP+4 cerca al computador que va ha ser usado para la instalación. Este computador necesita un puerto Ethernet (LAN).
2. Apague el computador.
3. Encienda el AP+4.

> **Importante!** Usar solamente el cargador de corriente enviado con el AP+4. Otros cargadores de corriente pueden dañar el dispositivo.

La luz LED **PWR** en el panel frontal del AP+4 deberá encenderse y la luz LED **WLAN** deberá titilar. (La Luz LED WLAN continua titilando para significar actividad de emisión siempre y cuando el LAN Inalámbrico este habilitado. Se habilita por defecto).

4. Conectar un extremo del cable Ethernet enviado al Puerto Ethernet del computador y el otro extremo a uno de los puertos LAN del AP+4.
5. Encienda el computador. El puerto **LAN** quedara conectado y la luz LED **ACT** (Actividad) se encenderá y quedará fija. (Si tiene una conexión Ethernet de 10 Mbps, la luz LED LAN no se encenderá).
6. Si desea que el AP+4 tenga acceso a Internet, conecte su puerto WAN al puerto Ethernet de su módem de cable, módem ADSL, u otro dispositivo de banda ancha.
   La luz LED **WAN** se encenderá.

Como Configurar el AP+4

1. Abra su navegador Web, ingrese 10.0.0.200 en la barra de direcciones y presione la tecla **Entrar** (Enter) para abrir el software de configuración Zoom AP+4. La página **Status** aparecerá primero.
2. En la ventana izquierda seleccione **Setup Wizard** (Asistente de Configuración).
3. En la página **Welcome** (Bienvenido) haga clic en **Next** (Siguiente).
4. En la página **Choosing an Operating Mode** (Seleccionar un Modo Operativo), seleccione la forma como desea usar el AP+4:

   - Router/Access Point (Enrutador/Punto de Acceso)
   - Ethernet Client (Cliente Ethernet)
   - Wireless ISP (Proveedor Inalámbrico de Servicios de Internet)

   Router/Access Point (Enrutador/Punto De Acceso). En este modo, que es el la mayoría de los usuarios seleccionarán, el AP + 4 conecta todas computadoras y otros dispositivos inalámbricos a una red y da esos dispositivos conseguir acceso a su conexión del Internet.

   Si desea utilizar el AP+4 como Repetidor, en la página de **Wireless Basic Setup** (Configuración Inalámbrica Básica), en el opción **Mode** (Modalidad), seleccione AP+WDS. En seguida, en la página **WDS Settings**,

   Ethernet Client. En este modo, el AP+4 se conecta a los puertos Ethernet de uno o más PCs o estaciones de juego para brindar acceso inalámbrico a la red inalámbrica.

   Wireless ISP (Proveedor Inalámbrico de Servicios de Internet). En este modo, el AP+4 conecta a los puertos Ethernet de hasta cuatro PCs con cables o consolas de juegos, y conecta los dispositivos de forma inalámbrica a un punto de acceso inalámbrico. Utilice este modo si sabe que necesita utilizar la funcionalidad NAT del AP+4. La mayoría de los usuarios que necesitan conectar un ordenador o consola de juego a un punto de acceso debe establecer la AP+4 como un Cliente Ethernet.

   Si se selecciona el modo de Proveedor Inalámbrico de Servicios de Internet, use la página de Configuración

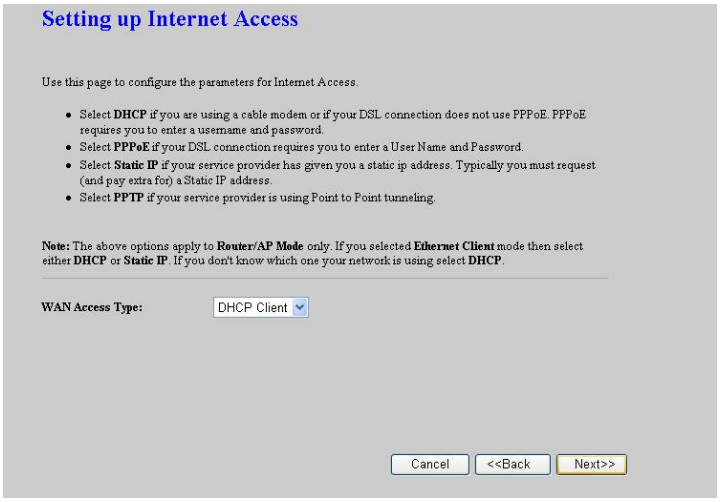
Inalámbrica Básica para configurar el AP+4 como un cliente inalámbrico.

Haga clic en **Next** (Siguiente) para continuar.

5 Para que el reloj del AP+4 sea actualizado automáticamente por un servidor NTP, vaya a la página **Selecting a Time Zone** (Seleccionando una Zona de Tiempo), seleccione una **Time Zone** (Zona de Tiempo) y un **NTP Server** (Servidor NTP) y haga clic en **Next** (Siguiente).

6 Si usted necesita instalar o modificar su red local atada con alambre, utilice la página de **LAN Interface Setup** (Como Configurar el Interfaz del LAN). Vea por favor las instrucciones en la guía del usuario en el CD AP+4.

7 Para conectarse a Internet, seleccione el método en la página **Setting Up Internet Access** (Como Configurar el Acceso a Internet).


Setting up Internet Access
Use this page to configure the parameters for Internet Access.
Select DHCP if you are using a cable modem or if your DSL connection does not use PPPoE. PPPoE requires you to enter a username and password.
Select PPPoE if your DSL connection requires you to enter a User Name and Password.
Select Static IP if your service provider has given you a static ip address. Typically you must request (and pay extra for) a Static IP address.
Select PPTP if your service provider is using Point to Point tunneling.
Note: The above options apply to Router/AP Mode only. If you selected Ethernet Client mode then select either DHCP or Static IP. If you don't know which one your network is using select DHCP.
WAN Access Type:
DHCP Client
Cancel
<<Back
Next>>

- Si esta usando el AP+4 como un Enrutador/Punto de Acceso o con un módem de cable, ir a **WAN Access Type (**Tipo de Acceso WAN) seleccionar **DHCP Client** (Cliente DHCP).
- Si tiene un módem ADSL y esta corriendo un software PPPoE en su computador, seleccione **PPPoE** (Protocolo Punto-a-Punto sobre Ethernet) e ingrese el **User Name** (Nombre de Usuario) y la **Password** (Contraseña) que su Proveedor de Servicio Internet le ha dado. Si no esta

seguro de si esta usando el software PPPoE, seleccione Cliente DHCP.

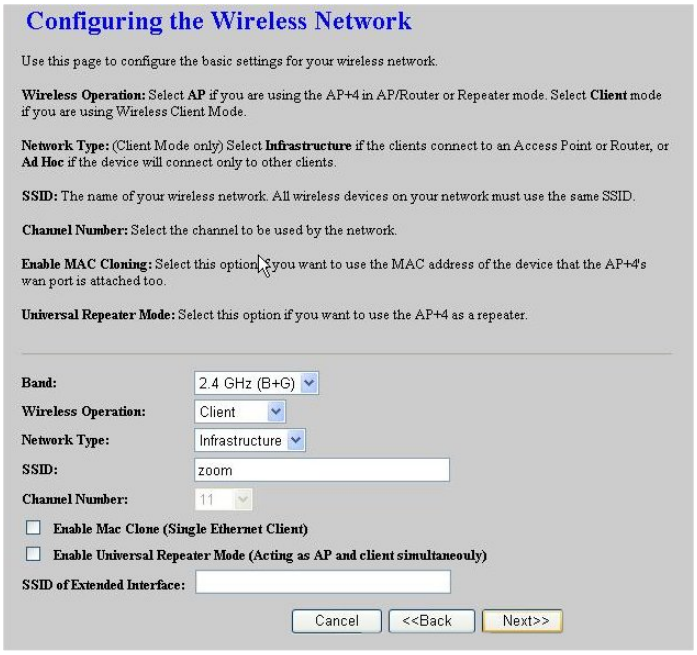
- Si esta usando el AP+4 como Cliente Ethernet o Repetidor, en **WAN Access Type** (Tipo de Acceso WAN) seleccione **DHCP Client** (Cliente DHCP) (mayoría de usuarios) o **Static IP** (IP Fija).

  En el caso que tenga un IP Fijo ingrese los valores para **IP Address** (Dirección IP), **Subnet Mask** (Máscara Subred), **Default Gateway** (Gateway por Defecto) y **DNS Server** (Servidor DNS) que desea usar en su red.

- Si esta configurando una Red Virtual Privada, seleccione **PPTP.** (Su ISP le dirá si necesita seleccionar este protocolo).

Haga clic en **Next** (Siguiente) para continuar.

8 En la página **Configuring the Wireless Network** (Como Configurar la Red Inalámbrica), ingrese los parámetros de su red inalámbrica.


Configuring the Wireless Network
Use this page to configure the basic settings for your wireless network.
Wireless Operation: Select AP if you are using the AP+4 in AP/Router or Repeater mode. Select Client mode if you are using Wireless Client Mode.
Network Type: (Client Mode only) Select Infrastructure if the clients connect to an Access Point or Router, or Ad Hoc if the device will connect only to other clients.
SSID: The name of your wireless network. All wireless devices on your network must use the same SSID.
Channel Number: Select the channel to be used by the network.
Enable MAC Cloning: Select this option if you want to use the MAC address of the device that the AP+4's wan port is attached too.
Universal Repeater Mode: Select this option if you want to use the AP+4 as a repeater.
Band:
2.4 GHz (B+G)
Wireless Operation:
Client
Network Type:
Infrastructure
SSID:
zoom
Channel Number:
11
Enable Mac Clone (Single Ethernet Client)
Enable Universal Repeater Mode (Acting as AP and client simultaneouly)
SSID of Extended Interface:
Cancel
<<Back
Next>>

- En **Band** (Banda), seleccione el tipo(s) de dispositivos en su red:
  - **B+G** si la red incluye ambos dispositivos 802.11b y 802.11g. Esta opción es la mejor para la mayoría de los usuarios.
  - **B** si la red solo incluye dispositivos 802.11b
  - **G** si la red solo incluye dispositivos 802.11g
- En **Wireless Operation** (Operación Inalámbrica), seleccione:
  - **AP** si esta usando el AP+4 como Enrutador /Punto de Acceso o Repetidor.
  - **Client** si esta usando el AP+4 como un Cliente Ethernet.
  - **WDS** si desea usar el AP+4 como Repetidor en el modo WDS (Sistema de Distribución Inalámbrica).
  - **AP+WDS** en el caso que desee que el AP+4 opere tanto como Punto de Acceso como Repetidor en el Modo WDS.
- En el **Network Type** (Tipo de Red – disponible solo si el AP+4 esta operando como Cliente) seleccione Infraestructura (mayoría de usuarios) o Ad Hoc.
- En **SSID,** ingrese el nombre de la red. Es posible que usted ya ha asignado uno a otro dispositivo, y en ese caso utilice el mismo SSID. Si no ha asignado ya una, puede crear un nuevo SSID ahora. Le sugerimos que hacerlo por lo menos 8 letras y números, y evitar un nombre que revela su nombre personal o nombre de compañía, o su dirección. El SSID distingue entre mayúsculas y minúsculas.
- En **Channel Number** (Número de Canal – disponible solo si ha seleccionado el canal Ad Hoc como su Tipo de Red), seleccione un número de canal que no este siendo usado por otra red cercana. Si no esta seguro de cual canal usar, intente Canal 6.
- Seleccione **Enable MAC Clone** (Habilitar MAC Clone) en el caso que desee usar la dirección MAC de un dispositivo en la red en lugar de la dirección MAC del AP+4.
- **Enable Universal Repeater Mode** (no disponible)
  - **SSID of Extended Interface** (no disponible)

9 En la página **Setting Up Wireless Security** (Como Configurar la Seguridad Inalámbrica), seleccione un método de encriptamiento para proteger su comunicación inalámbrica. *Le recomendamos firmemente que configure la seguridad*.

Setting Up Wireless Security
Select a security method to protect your wireless network. Setting security prevents unauthorized access to your network.
WPA2: Select this method if all the wireless devices in your network support it. WPA2 is the recommended setting.
WPA2 Mixed:Select this method if some of the devices in your wireless network only support WPA.
WPA:Select this method if none of the devices in your network support WPA2 but do support WPA.
WEP:Select this method only if you have older devices in your network that do not support WPA or WPA2.
Encryption: WPA2(AES)
Pre-Shared Key Format: Passphrase
Pre-Shared Key:
Cancel
<<Back
Finished

Nota: Incluimos aquí las instrucciones para configurar seguridad WEP 64-bit debido a que WEP-64 funciona con la mayoría del equipo inalámbrico 802.11.

El X6 también soporta WPA™ (Acceso Protegido WiFi™) y WPA2, que proveen mayor seguridad. Si todos los dispositivos en su red soportan WPA o WPA2, usted puede configurar automáticamente WPA o WPA2 en cada dispositivo con la página Wi-Fi Protected Setup (**WPS**) en la AP+4 menú de la Configuración Avanzada. Por favor, consulte la Guía del Usuario en el CD.

Para configurar la seguridad WEP-64, siga estos pasos:

En la lista **Key Length** (Largo de Clave), seleccione 64 bits.

En la lista **Key Format** (Formato de Clave), si todos los dispositivos inalámbricos de la red son productos Zoom, seleccione **ASCII**. De lo contrario, seleccione **Hex**.

En la lista **Default Tx Key** (Clave Tx por Defecto), selecciónе Clave 1 (defecto).

En la caja de texto **Encryption Key 1** (Encriptamiento Clave 1), ingrese la Clave 1 en el formato Hex o ASCII que ha seleccionado.

Si *ha seleccionado Hex* escriba su clave de 13-caracteres hexadecimales en el espacio que sigue para referencia futura y luego ingrese la clave en la caja Clave de Encriptamiento 1. (Cada letra o número de la clave debe ser uno de los siguientes: **0 1 2 3 4 5 6 7 8 9 A B C D E F**)

— — — — — — — — — — — — —

Si ha seleccionado ASCII escriba su clave de 5-ASCII-caracteres en el espacio que sigue para referencia futura y luego ingrese la clave en la caja Clave de Encriptamiento 1. La clave distingue entre mayúsculas y minúsculas.

— — — — —

Haga clic en **Finished** (Finalizado) y en el mensaje **Settings changed successfully!** (Configuraciones cambiadas exitosamente!) haga clic en **OK**.

Su configuración básica esta completa ahora! Ya no es necesario mantener el AP+4 conectado al computador de instalación.

- Si esta usando el AP+4 como *Enrutador /Punto de Acceso*, su módem de banda ancha ya ha sido conectado. Usted puede conectar hasta cuatro computadores, estaciones de juego u otros dispositivos en los puertos LAN del AP+4. El AP+4 también puede enlazar dispositivos inalámbricos a su red.
- Si esta usando el AP+4 como *Repetidor,* usted puede desconectar el computador del Puerto LAN del AP+4 y colocar el AP+4 cerca del borde de la red inalámbrica que desea extender.
- Si esta usando el AP+4 como *Ethernet Client* o *Proveedor Inalámbrico de Servicios de Internet* para brindar acceso a su red inalámbrica, usted puede conectar hasta cuatro computadores, estaciones de juego u otros dispositivos en los puertos LAN del AP+4.

Características Avanzadas

Para mayor información sobre todas las opciones en el menú del AP+4, vea la Guía del Usuario en el CD.

Detección y Solución de Problemas

Problema

Seguí las instrucciones para conectar el hardware del AP+4 e ingrese **10.0.0.200** en la barra de direcciones de mi navegador Web pero no pude acceder al AP+4.

Solución

Primero, resetee el AP+4 manualmente: inserte un sujetapapeles en la abertura RESET en el panel posterior y presione y sostenga por 10 segundos. Después de que lo haya hecho, reingrese **10.0.0.200** en la barra de direcciones de su navegador Web.

Si todavía no puede acceder al AP+4, siga los pasos a continuación para estar seguro de que las configuraciones TCP/IP de su computador estén correctas.

Usuarios de Windows XP:

1. En el escritorio de Windows, haga clic en el botón **Inicio**, abra el **Panel de Control** y haga doble-clic en **Conexiones de Red**.
2. Haga clic derecho en el icono **Conexión Área Local** y seleccione **Propiedades**.
3. Resalte la entrada **Protocolo de Internet (TCP/IP)** y haga clic en el botón **Propiedades**.
4. Seleccione **Usar la siguiente dirección IP** e ingrese **10.0.0.100** y **255.255.255.0** como la **Dirección IP** y **Máscara Subred** respectivamente.
5. Haga clic en **OK**, y luego en **Cerrar**.
6. Vuelva a entrar **10.0.0.200** en la barra de la dirección de su Web browser.

Usuarios de Windows 2000:

1. En el escritorio de Windows, haga clic en **Inicio**, señale **Configuraciones**, seleccione **Panel de Control** y luego seleccione **Conexiones de Red y Marcación**.
2. Haga clic derecho en el icono **Conexión de Área Local** y seleccione **Propiedades**.

3. Resalte la entrada **Protocolo de Internet (TCP/IP)** y haga clic en el botón **Propiedades**.

4. Seleccione **Use la siguiente dirección IP** e ingrese **10.0.0.100** y **255.255.255.0** como la **Dirección IP** y **Máscara Subred** respectivamente.

5. Haga clic en **OK** y luego en **OK** de nuevo.

6. Vuelva a entrar **10.0.0.200** en la barra de la dirección de su Web browser.

Usuarios de Windows Me o 98:

1. En el escritorio de Windows, haga clic en **Inicio**, señale **Configuraciones** y seleccione **Panel de Control.**

2. En la ventana **Panel de Control**, haga doble clic en el icono **Red.**

3. En la caja de dialogo **Red**, resalte la entrada **TCP/IP**, haga clic en el botón **Propiedades** y luego en **OK**.

4. En el tab **Dirección IP**, asegúrese de seleccionar **Especificar una dirección IP** e ingrese **10.0.0.100** y **255.255.255.0** como **Dirección IP** y Máscara Subred, respectivamente.

5. Haga clic en **OK**, y haga clic en **OK** de nuevo.

6. Vuelva a entrar **10.0.0.200** en la barra de la dirección de su Web browser.

Problema

Configure mi AP+4 como punto de acceso, pero los dispositivos que configure en mi red inalámbrica **zoom** no pueden acceder al Internet.

Solución

1. Verifique que un computador “de cable” pueda acceder al Internet.
   - Si no puede hacerlo, pruebe lo siguiente:
     a. Asegúrese de que la luz LED del Puerto LAN asociado del panel frontal del AP+4 este encendida.
     b. Revise las configuraciones TCP/IP en el computador (ver la página 21).

c Realice una operación Liberar/ Renovar (Release/Renew) en el computador, o reinicie.

- Si el computador cableado *puede* acceder al Internet, reinicie el dispositivo(s) en su red inalámbrica e intente acceder a la Web de nuevo.

  Si todavía no puede conectarse inalámbricamente a Internet, vaya al Paso 2.

2 Verifique que la seguridad no este configurada en el AP+4. Si lo esta, asegúrese de que todos los dispositivos inalámbricos estén usando las mismas configuraciones de seguridad.

3 Verifique que los dispositivos estén conectados a la red inalámbrica correcta y que la potencia de la señal es la adecuada. (Si la potencia de la señal es muy baja intente reposicionar los dispositivos).

4 Si esta usando Windows XP con acceso inalámbrico incorporado:

a En el escritorio de Windows, haga clic en el botón **Inicio**, luego haga clic en **Panel de Control**.

b Haga doble clic en el icono **Conexiones de Red**.

c Haga clic en el icono **Conexión de Red Inalámbrica**.

d Vea los detalles que aparecen en la parte izquierda de la pantalla. Si la potencia de la señal es baja, intente reposicionar las antenas del AP+4. También puede intentar ubicar los dispositivos inalámbricos más cerca al AP+4. También debe verificar si ha seleccionado **zoom** como la red inalámbrica. Si no es así, entonces usted se ha conectado a la red equivocada.

5 Si esta usando un computador con una tarjeta de red inalámbrica ya instalada, acceda al software de la tarjeta de la red y verifique que este conectada a la red de **zoom** y que la potencia de la señal es la adecuada. Si necesita ayuda para hacer esto refiérase a la documentación que recibió con la tarjeta de la red.

Si Necesita Ayuda

Si necesita ayuda, debe considerar el contactar a su proveedor de servicio. Le aconsejamos que registre su producto y que tenga en cuenta las muchas opciones de soporte que Zoom tiene a su disposición. Por favor vaya a **www.zoom.com** y seleccione **Soporte Técnico** (Technical Support). Desde aquí usted puede **registrar su módem** y/o **hacer contacto con nuestros técnicos de soporte expertos** y/o usar nuestra base de datos inteligente **SmartFacts**^{tm} y/o conseguir información sobre la **garantía**.